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Appeal Brief
Stimmerman

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Terri S. Flynn, Reg. No. 41,756

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Thomas M. Luebke.

Serial No.: 09/884,518

Filed: June 19, 2001

Title: HAND DRILL ATTACHMENT

Docket No.: 380201.91136

Art Unit: 3711

Examiner: W. Pierce

SUBMISSION OF APPELLANT'S BRIEF ON APPEAL

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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TECHNOLOGY CENTER R3700

Sir:

Appellants hereby submit three copies of their brief and Appendix in the appeal of the final rejection of the above patent application.

The \$320.00 fee for filing a brief, an extension fee for one month, and any other fees due should be charged to Deposit Account No. 17-0055. A duplicate copy of this paper is enclosed for this purpose.

Respectfully submitted,

Wayne D. Morgan

Dated: July 17, 2003

By:

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

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APPELLANT'S BRIEF ON APPEAL

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Appellant, Actuant Corporation, having filed a timely Notice of Appeal in the above-identified patent application, hereby submits this brief.

I. REAL PARTY IN INTEREST

The present application is assigned to Actuant Corporation, a Wisconsin Corporation having a place of business at 6100 N. Baker Road, Milwaukee, WI.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

Claims 1-16 are currently pending in the subject patent application and stand finally rejected. This appeal is taken with respect to claims 1-16, which are set forth in Appendix A hereto.

IV. STATUS OF AMENDMENTS

The application was filed with 11 claims on June 19, 2001. In an amendment filed on Oct. 29, 2002, claims 1, 2, and 7 – 11 were amended and new claims 12 – 16 were added. Claims 1 – 16 were finally rejected in an office action dated January 17, 2003.

V. SUMMARY OF THE INVENTION

The invention provides a subsurface object locator accessory device for a hand drill. The subsurface object locator includes circuitry for finding hidden objects such as studs, joists and other similar objects below the surface of walls, floors and similar structures, and includes a housing which is constructed to allow the subsurface object locator device to be removably attached to the housing of a drill. The housing includes a substantially flat surface, specifically allowing the circuitry to be moved in proximity to a wall, and an attachment member for detachably mounting the accessory housing to the drill housing.

The invention also provides a hand drill that has a subsurface object locator detachably incorporated into its housing. The subsurface object locator is attached to the housing of the drill with a detachable fit, so that it may be carried to a work site as part of the drill, detached from the drill at the work site and used to probe a wall surface. The subsurface object locator can be reattached to the drill housing when probing of the wall surface is finished.

VI. ISSUES ON APPEAL

1. Whether claims 1 – 6 and 11 are anticipated under 35 U.S.C. Section 102(b) as anticipated by Hubscher, U.S. Patent Number 5,170,545.

2. Whether claims 1 – 16 are unpatentable over Hibbard U.S. Patent Number 4,797,040 in view of Heger U.S. Patent Number 5,352,974.

VII. GROUPING OF CLAIMS

No special grouping is required.

VIII. ARGUMENT

A. Rejection under 35 U.S.C. Section 102(b)

The rejection of claims 1 – 6 and 11 under 35 USC Section 102(b) in view of Hubscher is improper and should be reversed. To anticipate a claim, the cited reference must show each and every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." See M.P.E.P. § 2131 citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See also MPEP § 2131.02. "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The cited reference, however, clearly does not show all of the elements of the rejected claims, and therefore cannot anticipate these claims.

I. Description of the Prior Art

Hubscher discloses an adaptor for converting a screwgun into a saw. The adaptor includes a saw blade which extends outwardly from an end of the screwgun, and a metal sensor having a switch and an indicator light for determining the position

of an electrical box behind the drywall. The adaptor has an internal aperture or bore which is slid over the screwgun. The motion of the rotating end of the screw gun is translated through a series of gears into a sawing motion to drive the saw blade back and forth. The adaptor, as can be seen from the cross-sectional view of Fig. 2, is round in construction, as is the underlying screw gun.

II. The Prior Art Does Not Disclose All of the Elements of the Rejected Claims

In rejecting the claims under 35 USC Section 102(b), the Examiner provided the following reasoning:

“As to claims 1 and 11, shown is a housing 11 with a flat surface 15, an attachment member 31, sensing circuitry in Fig. 5, and indicator 75”... “The flat surface interfaces with the drill as called for in claim 3 since the broadest definition of “interface” is to “interact smoothly”. The attachment member is considered to be adjacent or “next to” the flat surface as called for in claims 4 and 5”.

This rejection was repeated after the Appellants’ first amendment.

Claim 1 recites a subsurface object locating accessory for use with a drill. The subsurface object locating accessory includes an accessory housing having a substantially flat surface for probing across a wall surface. Claim 11, recites a hand drill including a detachable subsurface object locator accessory. The hand drill includes a drill housing defining an accessory mount for receiving a substantially flat surface, and a locator housing having a substantially flat surface for sliding along a surface to be probed.

Referring to the cited reference, it can be seen that the elements cited by the Examiner are not equivalent to those cited in the claim, and in fact, are very different. The Examiner has cited the “second end” 15 as equivalent to the flat surface of claim

1. The “end” cited by the Examiner, however, is shown only in a one-dimensional cutaway side view. It is not possible, from the angle shown, to determine whether the surface is flat at all. Surfaces shown in Fig. 1, for example, which appear to be flat, and are illustrated in exactly the same way as those of “end 15” can be clearly seen to be round in Figs. 2 and 3 (see, for example, the housing 11). Moreover, there is no indication in the specification that the “end” is a flat surface. The Examiner, therefore, has failed to show this element of the claim.

Furthermore, even if the “end” were flat, it could not be slid along a wall or other flat surface, as the saw blade 65 and associated coupling devices extend from the end 15, preventing the surface 15 from being positioned proximate a surface to be probed.

The element cited as equivalent to the attachment member is an “elongated bore” 31. The elongated bore, however, is not an “attachment member” as it does not attach the adaptor to the underlying screwgun. The elongated bore 31, in fact, is “sized and configured to allow a tool bit removably received in the existing screwgun to freely rotate therein” (column 2, lines 39 – 41) and is therefore not only not intended to couple the adaptor to the screwgun, but is intended to prevent contact between the screwgun and the adaptor such that the tool bit can rotate.

Claim 11 further recites a mounting surface for receiving a substantially flat surface. No attempt has even been made to show such a surface, nor does one exist.

III. Conclusion with Respect to Anticipation Rejection

The Examiner has failed to identify all of the elements of any of the claims in the cited prior art reference. The Appellants therefore respectfully request that the rejection under 35 U.S.C. Section 102(b) be reversed.

B. Rejection under 35 U.S.C. Section 103

The rejection of claims 1 – 16 under 35 U.S.C. Section 103 is improper and should be reversed. To establish a prima facie case of obviousness, the prior art references must teach all of the limitations of the claim. Furthermore, there must be some suggestion or motivation to combine the cited references, and the teaching or suggestion to make the modification must be found in the reference and cannot be based on Applicant's disclosure. See MPEP §706.02(j) (citing In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)). Furthermore, the mere fact that a reference can be modified does not render the resultant modification obvious unless the reference also suggests the desirability of the modification. See MPEP §2143.01 (citing In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)).

In the absence of actual evidence, “it might not be unreasonable for the examiner in a first Office action to take official notice of facts by asserting that certain limitations in a dependent claim are old and well known expedients in the art without the support of documentary evidence provided the facts so noticed are of notorious character and serve only to “fill in the gaps” which might exist in the evidentiary showing made by the examiner to support a particular ground of rejection”. M.P.E.P. § 2144.03 citing In re Zurko, 258 F.3d 1379, 1385, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001); Ahlert, 424 F.2d at 1092, 165 USPQ at 421. However, there “must be some form of evidence in the record to support an assertion of common knowledge.” See M.P.E.P. § 2144.03 citing Lee, 277 F.3d at 1344-45, 61 USPQ2d at 1434-35 (Fed. Cir. 2002); Zurko, 258 F.3d at 1386, 59 USPQ2d at 1697 (holding that general conclusions concerning what is “basic knowledge” or “common sense” to one of ordinary skill in the art without specific factual findings and some concrete evidence in the record to support these findings will not support an obviousness rejection). Furthermore, it is never appropriate to rely solely on common knowledge in the art

without evidentiary support in the record as the principal evidence upon which a rejection was based. See M.P.E.P. § 2144.03 citing Zurko, 258 F.3d at 1386, 59 USPQ2d at 1697; Ahlert, 424 F.2d at 1092, 165 USPQ 421.

Therefore, to establish a prima facie case of obviousness, the Examiner must: (1) provide references which illustrate all of the elements of the claim and (2) provide a motivation or suggestion to combine these elements. Evidence based on common knowledge or common sense which is not supported by the references can be used to “fill in the gaps”, but only under limited circumstances. Such evidence cannot be relied on without substantial support in the record as the principal evidence.

I. Description of the Cited Prior Art References

Hibbard discloses a strap-on drill paraphernalia holding system (DPHS). The holding system includes a Velcro strap extending around the housing of the drill. The strap receives a cylinder base in which drill bits are stored. Hibbard does not discuss or even mention any other accessory or device to be used with the drill.

Heger discloses a stud sensor circuit, and particularly a stud sensor circuit including a digital averager and dual sensitivity for probing thick and thin surfaces. Heger does not disclose a housing for the stud sensor, nor any structure or method for coupling the stud sensor to another housing or tool. Furthermore, Heger does not disclose, or even mention a drill or any other hand tool.

II. The Cited References Do Not Disclose All of the Elements of the Claim

In rejecting all of the claims as obvious over Hibbard in view of Heger, the Examiner made the following argument:

“Hibbard shows a drill with a holding system for holding paraphernalia needed for a particular job. Known in the drilling of holes is the use of a stud sensor for determining the location of a stud prior to drilling a hole in a wall. To have combined a drill with a detachable stud sensor would have been obvious to make it more

convenient. The location and the means for mounting the sensor to the drill is considered an obvious matter of design choice. It is noted that case law had held that a designer skilled in the art is charged with knowledge of the related art; therefore, the combination of old elements, herein, would have been well within the level of ordinary skill".

Claims 11 and 16 each recite a subsurface object locator including a housing for detachably mounting the locator device to a drill housing. Neither of the cited references, however, discloses a housing for a subsurface object locator at all, much less one that detachably mounts to a drill housing. Furthermore, neither of the cited references disclose a drill housing including a mounting surface for receiving a flat surface as recited in claims 11 and 16. Claim 16 further recites a drill housing having an attachment tab and an accessory housing having a slot. No such elements have been identified, nor has any attempt been made to locate such elements. These references, therefore, do not provide all of the elements of the claims and cannot be combined to provide the invention as recited in claims 1 and 11.

III. The Cited References do not provide a Suggestion or Motivation to Combine

Furthermore, even if all of the elements of the claim were found in the cited references, no suggestion or motivation to combine the references is found outside of the Appellants' disclosure. As noted above, the Hibbard reference never discloses a subsurface object locator, stud finder, or any device for use with a drill other than a drill bit, despite the fact that the patentee has "worked extensively in the construction trade" (column 1, lines 21 – 23). Furthermore, Heger does not discuss the use of a drill or any other hand tool in any way. The suggestion for a combination of a drill and a detachable subsurface object locator is therefore not found in the cited prior art references.

IV. “Common Sense” is an inappropriate replacement for the lack of evidence provided

As the cited references do not disclose all of the elements of the claim, and do not provide a motivation to combine, the Examiner has instead relied upon “common sense” and “personal knowledge” to reject all of the claims.

As noted above, in the initial rejection, the Examiner relied on his belief that the invention was an “obvious matter of design choice” and merely a combination of old elements. In response to the Appellants’ assertion that the rejection was unsupported in the final rejection of January 17, 2003, the Examiner expanded this argument as follows:

“The examiner has extensive personal experience with both a stud finder and a drill in applications such as installing wall anchors for shelves. The use of these tools together in combination as being known to the prior art has little room for argument. Further one must consider such is a matter of common knowledge and common sense of the person of ordinary skill in the art to design a table that is bigger where more room is needed. (See *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969)). Additionally, one must observe that an artisan must be presumed to know something about the art apart from what the references disclose (see *In re Jacoby*, 309 F.2d, 513, 516, 135 USPQ 317, 319 (CCPA 1962).” And further “...One skilled in the art would clearly be able to determine shapes necessary to attach two devices in a compatible way.”

As noted above, when applying standards of “common sense” and “personal experience”, the principle evidence for the rejection must be found within the references. The Examiner’s principle evidence of obviousness here is a drill with a Velcro strap for holding drill bits. Based on this evidence, the Examiner asserts that it is obvious to combine any device known to be used with a drill with the drill, and further, that it is obvious to make the combination in any way.

The use of “personal experience” and “common sense” in rejecting claims based on obviousness is, however, limited, as recited in the M.P.E.P. cited above. The use of such evidence to reject all of the claims without proper evidentiary support is improper.

V. Objective Evidence of Non-Obviousness

Objective evidence or secondary considerations such as unexpected results, commercial success, long-felt need, failure of others, copying by others, licensing, and skepticism of experts are relevant to the issue of obviousness and must be considered in every case in which they are present. When evidence of any of these secondary considerations is submitted, the examiner must evaluate the evidence. The weight to be accorded to the evidence depends on the individual factual circumstances of each case. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 231 USPQ 81 (Fed. Cir. 1986), *cert. denied*, 480 U.S. 947 (1987). The ultimate determination on patentability is made on the entire record. *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See M.P.E.P. § 2141.

In response to the final office action dated January 17, 2003, the Appellants contacted the Examiner to apprise the Examiner of objective evidence of nonobviousness in the present case, despite the Appellants disagreement with the rejection. Specifically, the Examiner was notified of a licensing agreement entered into by the Appellants with Skil-Bosch, a major manufacturer of power tools. The Examiner, however, suggested to the Appellants that licensing was not a basis for review by Examiners at the Patent and Trademark Office.

Attached hereto is an affidavit providing details of the objective evidence. The affidavit confirms that the invention as claimed is presently being successfully

marketed by a major manufacturer of power tools under a license from the Appellants. As the licensee has been a major, international manufacturer of power tools for many years, already produces and sells a line of drills, the claimed invention is clearly the reason for the license. Furthermore, the licensee has stated specifically in public press releases, detailed in the attached affidavit, that a need for the claimed invention existed prior to the introduction to the market. Since the introduction to the market, the product based on the claimed invention has been a substantial commercial success, also as detailed in the attached affidavit.

The evidence clearly demonstrates that the Appellants' invention was not obvious.

VI. Conclusions with Respect to Obviousness Rejection

The rejection of all of the claims in view of Hibber and Hegal is improper for the following reasons:

1. The references fail to provide all of the elements of the claims.
2. The references fail to provide a suggestion or motivation to make the claimed combination.
3. The rejection is based primarily on "common sense" and "design choice" considerations rather than evidence found in the prior art, and is therefore improper.

Furthermore, there is substantial objective evidence of non-obviousness. The present invention has been licensed to a major manufacturer of power tools, and has been introduced into the market with significant commercial success, as attested to in the enclosed declaration.

Based, therefore, both on the lack of evidence of obviousness and the substantial evidence of non-obviousness, the Applicants respectfully request that the rejection of claims 1 – 16 under 35 U.S.C. Section 103 be overturned.

IX. CONCLUSION

The Examiner has failed to show that any of the claims are anticipated by the cited Hubscher reference. The Examiner has also failed to show that any of the claims are obvious in view of Hibbard and Hegel. The rejection of the claims, in fact, appears to be based substantially on the opinion of the Examiner that not only this, but any combination of a drill with a drill accessory would be obvious. This standard is improper and cannot be used to support the present rejection.

Furthermore, the Appellants have submitted substantial objective evidence indicating that the claimed invention is not obvious. Therefore, the Appellants respectfully request that the rejection of the claims under 35 U.S.C. Section 102(b) and under 35 U.S.C. Section 103 be reversed.

Respectfully submitted,

Dated: July 17, 2003

By: 

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APPENDIX A

1. A subsurface object locating accessory for use with a hand drill having a drill housing, the accessory comprising:

an accessory housing having a substantially flat surface for sliding across a wall surface and an attachment member for detachably mounting the accessory housing to the drill housing;

sensing circuitry contained within the accessory housing for detecting subsurface objects probed by said accessory; and

an object indicator connected to the sensing circuitry for indicating the presence of a subsurface object.

2. The drill accessory of claim 1, wherein the accessory housing is shaped to provide a handrest for operating the drill.

3. The drill accessory of claim 2, wherein the substantially flat surface interfaces with the hand drill.

4. The drill accessory of claim 1, wherein the attachment member is located adjacent to the substantially flat surface.

5. The drill accessory of claim 4, wherein the attachment member is part of a connection joining the accessory housing to the drill housing.

6. The drill accessory of claim 5, wherein the attachment member includes a key hole slot having an enlarged area and a narrowed area.

7. The drill accessory of claim 6, wherein the key hole slot is sized and dimensioned to receive a projecting attachment member in the drill housing.

8. The drill accessory of claim 7, wherein [the drill housing has two laterally spaced tabs and] the accessory housing has two laterally spaced key hole slots, each of the keyhole slots being sized and dimensioned to receive an attachment member in the drill housing.

9. The drill accessory of claim 8, wherein the substantially flat surface of the accessory housing comprises a base plate, the key hole slots being defined in the base plate.

10. The drill accessory of claim 9, wherein the base plate is sized and dimensioned to be received in a mounting plate in the drill housing, the key hole slots in the base plate being removably attachable to a corresponding attachment member in the drill housing.

11. A hand drill including a detachable subsurface object locator accessory for detecting the presence of an object beneath a surface being probed with the locator, comprising:

- a drill housing defining an accessory mount having a mounting surface for receiving a substantially flat surface and including a first attachment member;

- a locator housing having a substantially flat bottom surface for sliding along a surface to be probed, the substantially flat bottom surface including a second attachment member engaged with the first attachment member for detachably mounting the locator housing to the accessory mounting surface of the drill housing;

- sensing circuitry contained within the locator housing for detecting subsurface objects; and

- an object indicator connected to the sensing circuitry for indicating the presence of a subsurface object.

12. The hand drill of claim 11, wherein the second attachment member is a slot.

13. The hand drill of claim 12, wherein the first attachment member is a projecting attachment tab sized and dimensioned to be received in the slot.

14. The hand drill of claim 12, wherein the slot comprises a keyhole shape.

15. The hand drill of claim 13, wherein the second attachment member comprises a key hole slot having an enlarged area and a narrowed area, and the projecting attachment tab of the first attachment member is smaller than the enlarged area of the key hole slot in the second attachment member and larger than the narrowed area of the key hole slot in the second attachment member.

16. A hand drill including a detachable subsurface object locator accessory for detecting the presence of an object beneath a surface being probed with the locator, comprising:

a drill housing defining an accessory mount having a mounting surface for receiving a substantially flat surface and including a projecting attachment tab;

a locator housing having a substantially flat bottom surface for sliding along a surface to be probed, the substantially flat bottom surface including a slot sized and dimensioned to engage with the projecting attachment tab for detachably mounting the locator housing to the accessory mounting surface of the drill housing;

sensing circuitry contained within the locator housing for detecting subsurface objects; and

an object indicator connected to the sensing circuitry for indicating the presence of a subsurface object.